

MASTER PLAN HEARING
HAWAII VOLCANOES NATIONAL PARK

GOLD BOND BUILDING
HONOLULU, HAWAII
MONDAY, FEBRUARY 25, 1974

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Meeting convened at 1:45 p.m.

DR. GORDON MACDONALD (Informal Comments): There is warm water known in pools along the shoreline for a long time (indicating southwest corner of park proposed for addition). The name actually means hot water, but anyhow this looks like one of the best prospects. Now this does not mean it's a good prospect, but it looks like one of the best geothermal development at the present time. Now if this were taken into the park, I think that would exclude development and this worries me from two standpoints. One is from the general economics of this community. If energy can be developed, it is very important, particularly nowadays. But the other is from the public relations standpoint, and I think both things ought to be considered.

MR. ROBERT BARREL: Yes, if we obtained it just as it is being focused on as a power development site, that would be bad news.

DR. MACDONALD: Yes, you say you can't come in and develop it, then everybody is mad at you. You've lost the friends you do have.

MR. BRYAN HARRY: Gordon, would it be possible to put everything aside on a block like that and say, wait 20 years?

DR. MACDONALD: I think so. That's what I prefer to see done. I also thought of the possibility of saying. "Well, we'll take it in but we'll allow exploration of development."

MR. HARRY: I don't think that would be wise.

DR. MACDONALD: I don't like it because it would set precedents.

MR. RON MORTIMORE: It's already part of the authorized park now.

MR. HARRY: It's essentially private land, and they're free to do anything with it unless we buy it. If we just held off for a couple of decade, which should be time to pursue it.

DR. MACDONALD: I honestly don't think the prospects are terribly good, but they do exist. I mean there is a possibility; and until that's eliminated, I prefer to see you leave it alone.

MR. HARRY: Is that in your letter?

DR. MACDONALD: Yes, it's in the letter. (See Appendix A)

MR. BARREL: That's very interesting and new information for me.

DR. MACDONALD: Well, it's new information. We knew about the hot water along here--of course, not hot water but it's warm. It's 30° Centigrade. It isn't exciting, but the fact that it's warm may be important. The infra-red surveys show this is the hottest area they've found on the infra-red. That essentially is it; other than to try to endorse your other things.

I particularly like this Hualalai suggestion; I'd very much like to see that taken in. Also, the southwest rift, especially around sulphur cone. The sulphur lava flow, sulphur cone, if you like, is one of the very few we know of in there. It may not last too many years but it's there now.

MR. BARREL: There is a sulphur flow, really? I'll be darned.

DR. MACDONALD: It developed sometime after the 1950 eruptions. In fact, it developed later than that because Jimmy Orr and I came down the rift along about--I think it was in 1951. It was between

the 1950 and 1952 eruptions--probably 1951. There was no sulphur flow there then, so sometime after that it developed. It just trickled down the side of the cone. It's not awfully big, but quite interesting. There's some others known in Africa and in Japan.

MR. HARRY: That's within the area that we now propose?

DR. MACDONALD: Yes, and there are a lot of interesting geologic things down along the rift zone, down through here. A lot of things which resemble things you already have in the park but still interesting.

Incidentally, maybe just a comment on things over here on the Hualalai area. I don't know how much you've gotten on that in your other hearings. We have in Hawaii a regular evolution of the volcanoes, and we have a good example of the youthful shield volcano and calderas here that are already in the park. At Haleakala we have excellent examples of the late stage. Hualalai is the middle stage; and it's best displayed here of anywhere in Hawaii. A lot of things associated with it are pretty fragile. The cones and what not on the summit go fast if they're disturbed, and they are being disturbed. Up to about 10 years ago there was very little disturbance; but in the last 10 years there have been vehicles driven all over the cones. They are starting to gully. The erosion is starting not only because of the vehicle tracks, but because of the destruction of vegetation, and they are beginning to show signs of abuse. If they are going to be preserved, it ought to be soon.

Then the other thing is down here in the saddle itself. You have, of course, the Judd Trail and the Ahuaumi Heiau. The Judd Trail is

beginning to get obliterated; stones along the edge are beginning to be scattered by, I'm sure, both field vehicles and animals. The heiau itself is being disturbed to some extent. Last time I was there, there were wheel tracks going right into the heiau. There were campfires by the fireplace, ashes, and piles of tin cans, and what not. So it is being destroyed.

MR. MORTIMORE: That had been disturbed before, I think, unfortunately.

DR. MACDONALD: Yes, it's getting worse all the time. That's really all I have to say. It's all down in writing; I'll give it to you in the letter. (Copy of Dr. MacDonald's letter enclosed.) Well, that's what I have to say; if there is anything I can contribute of my other knowledge, I'll be glad to.

MR. BARREL: Thank you. We will be conferring with you, I am sure, because of your very great knowledge of the area.

Unless there is someone here who has something to say, we will reconvene at 7:00 o'clock. (No response.)

(Meeting recessed at 2:30 p.m. until 7:00 p.m., at which time the meeting reconvened.)

EVENING SESSION

Meeting reconvened at 7:00 p.m.

MR. BARREL: Although there may still be people lost in the parking ramps, let's begin. As you know, this is a meeting to get the help of people in Hawaii toward the completion of a good master plan for Hawaii Volcanoes National Park. Tomorrow we will have a formal wilderness hearing so that we may receive testimony toward producing a good wilderness proposal for Hawaii Volcanoes National Park.

I'm Bob Barrel, State Director for the National Park Service for Hawaii. With me at the table are three people whom I will introduce and ask at least two of them to speak to you briefly before we start finding out from you what you think of the plan and how it can be improved. This is Bryan Harry, Superintendent of Hawaii Volcanoes National Park. On his left is the Director of the Western Region of the National Park Service in San Francisco, Howard Chapman. On his left is Ron Mortimore, Park Planner from the Western Regional Office in San Francisco. Eventually, in a moment, I will ask Ron to explain what these maps are, what our planning process has been, why we have a tentative proposal for a master plan, and what the other alternatives mean. Before I do that, though, may I introduce Howard Chapman..

MR. HOWARD CHAPMAN: If you don't mind I'll just stay in this general area. I was going to say stay seated, then I saw that individuals had to crane to see me, so I'll get on my feet. I'd like to keep it informal.

The comments that I have to make are going to be rather short, but I feel extremely important in the process we're trying to achieve

here tonight and, hopefully, in the days ahead. Because even though the Wilderness Act that you, if you're present tomorrow, will hear about, this requires a public meeting in order to get input from the public relative to our plans.

The National Park Service is launching on this project of having public input into it's master plan as well as many of it's other action plans that have an effect upon a national park and how people use it, and what it means to them. For that reason I think that it is extremely important that we have the opportunity of hearing from you as to how you feel this plan meets the things that you are concerned about that a national park should mean to you. Hopefully, that in this way your National Park Service, that manage these areas, will become responsive to the needs that people have for areas that they felt important enough to have set aside--not just for preservation but for use as well. We can do our job only as well as you are interested, willing, and committed to assist us in doing this. So I earnestly seek from you your comments, in order that we can make this a master plan that truly meets your needs for a national park.

MR. BARREL: Thank you, Howard. Ron, how about explaining to us what all this is about

MR. MORTIMORE: O.K. First a brief explanation of what the maps are all about. There are an awful lot of them up here; they all mean something a little different.

The map in the corner right here depicts the current draft proposal, as it says here, which is noted and explained in the master plan itself and also in the environmental impact statement that

accompanies it. In other words, this is the proposal we are recommending now. The other maps indicate alternatives which we studied as part of the master planning process. We also are interested in your comments on those particular parts of the study. They were part of the process that we went through to arrive at this particular draft proposal, but they are important in that they are a part of the draft environmental impact statement. We are interested in what you think about those as well.

Essentially, the current draft proposal involves adding considerable amount of land to the park. The red line that you see here indicates the current authorized boundary of the national park, and within that we propose some changes--acquiring certain lands which we do not now own. For one, the Olaa Forest, which actually we do own now. The Federal Government does own the land, we do manage it, but there are some questions whether that can be a part of the park since it's not contiguous. This is all some technicalities in the legislation which authorized the park. Right now it is not actually adjacent to the park, and we propose to exclude or remove from the authorized boundary a small parcel of land intervening between the Olaa Forest and Kilauea. Essentially it is land which is subdivided, with a lot of exotic plants there. We don't feel it is really needed as part of the park, so we are proposing to delete it from the authorized boundary. Down here, essentially paralleling the Chain of Craters, a parcel of land--ohia fern forest--which is a particularly good example of that kind of ecology. We would like to add that parcel to the park; again, it is within the authorized boundary.

Going on down to Kalapana the area that you see here we are proposing to delete. Again, it's been subdivided, essentially changed from its original state. We propose to remove all of that from the boundary except for a small parcel right along here which would provide a buffer zone between the Kalapana Road and the development which is going on mauka.

In this area we are proposing to add or acquire a parcel of land down here at the south part of the park. Essentially the line follows the Great Crack all the way to the sea. It just adds that, a logical portion of that, to the park.

In addition, we are proposing to add to the authorized boundary a rather large section here, about 100,000 acres, including the southwest rift zone of Mauna Loa down to about the 8,000 feet or approximately where the vegetation line begins. Also, the summit of Hualalai and some of the intervening lands between Hualalai and Mauna Loa. Also, some land here on the north shoulder of Mauna Loa--about 100,000 acres--essentially adding to the top of Mauna Loa and then a small part of the summit of Hualalai. Also a strip of water about 5,000 to 6,000 acres along the entire coastline of the park to give us the opportunity to manage more efficiently the inter-tidal zone, right along the coast here. Currently the boundary is at the high, high tide line or the vegetation line.

Development, essentially the same; pretty much a status quo for the current park area. Visitors coming in as they do now into the Kilauea area, visiting the volcano, perhaps down to this area where the activity is taking place now, and then going on out toward Kona,

or reverse, as they do at this time. Adding mainly in this area a small interpretive facility in Olaa Forest to allow visitors to go into that area, and visit and appreciate the fern forest. Also, we are proposing to re-establish the road connection between Kalapana and the Chain of Craters where it has been covered by lava. We won't be doing this right away; we'll have to wait until the current lava flows cease. We don't know when that will be but at some time we would like to re-establish that road since we feel it is an important link between Kilauea and the Kalapana road.

Hualalai--not much development here; mainly a rather nice, small development at the base of the summit of Hualalai with a road connecting from the Kona Belt Road above Kailua--probably about 15 miles of road going from the belt road up to about the 5,000-foot level. Providing a space for camping, picnicking, trailhead, small interpretive facility. Providing for a scenic drive up through Kahuluu Forest and perhaps a small administrative facility there. We will also, we hope, eventually connect with a trail from the summit of Mauna Loa down to this area.

Also, in connection with this, a similar kind of development which will take place on the road that now goes from Kilauea up the Mauna Loa Strip and also down around the Ainahou-Hilina Pali area, a development called a wilderness threshold zone. Sort of an introduction to wilderness; a transition zone perhaps between the major developed areas around Kilauea and the backcountry or roadless area; places where people can camp and picnic; places for perhaps short hikes, but

a sort of a view into the wilderness area without actually being there. Best term perhaps--wilderness threshold zone.

Going over to Alternative A. These alternatives, incidentally, are similar to the alternatives noted in the impact statement which accompanies the master plan. Alternative A is essentially a status quo plan for the park. Very little change in development. Again, only adding the interpretive facility here at the Olaa Forest and proposing the road connection between Kalapana and Kilauea. Essentially a status quo plan.

Alternative B is just about what we proposed in the 1970 master plan. Somewhat the same proposals as far as boundary changes as you see here in the current draft proposal, but also an additional amount of land along the north shoulder of Mauna Loa to provide for a route for a parkway. That, of course, was a major facility in that proposal--a parkway going from the Kalapana seashore up to around the 9,000-foot level, then descending down into the saddle area between Mauna Loa and Hualalai and the Ahuaumi Heiau area, and going on down to Honaunau Forest, with a portion of Honaunau Forest added, going on down all the way and then ending at City of Refuge. Again, this is essentially what was in the 1970 plan. About the same kind of development here, except no parkway, and a large amount of development in this area. This, of course, is much less--just a road up from the Kailua area up to the base of Hualalai.

Alternative C is kind of a minimum development plan, again proposing an additional parcel of land in the Hualalai-Mauna Loa area but without any major development in that area. Essentially back-country

concept for it, sort of a purist approach to park preservation, and no development except for trails in this area.

Down here a map just showing additional information on the Kalapana Extension which we are discussing now, some problems concerning the homesite provision, and also the Kilauea Forest Reserve which has been suggested by some as a possible addition to the park. In other words, a map just to give you additional information since there may be some comments about either of these things in the public meeting.

That's essentially the plan and the alternatives. Bob, do you want to have a break.

MR. BARREL: Thanks Ron. I'd like to add one thing to what Ron said. I think he has made it abundantly clear that these are all alternatives that can be considered, and they do not encompass the total range of alternatives, there could be combinations. I just want to emphasize that this word "draft" is exactly what it says. Our planning process is such that we, at this stage, are by no means fixed set on a definite proposal.

This is not a public meeting which would, in effect, be a "shibai" to validate a decision already arrived at. We are asking for your comments, your assistance, and your help in providing for the future the best possible plan for that, in my opinion, great national park. It will only be the best possible plan if we get the best possible kinds of thoughts and comments from you all. That's why we're having these meetings so we can get input from you. We will leave the record open for several more weeks so that those who wish to supply comments in some written form can do so. Then we go into the internal process

again and sort through the ideas, develop a concrete proposal at that time with a re-done environmental impact statement in which we will come to grips with the issues which you raise and your criticisms of the draft EIS. So, please be frank; you help us the most in that fashion.

In just a few minutes we will start hearing from you. Before we do let's take a 5-minute break particularly so that if any of you who have come in after we started wish to say something tonight and have not indicated your desire to do so can sign up with Larry Quist there at the back of the room and we can hear from you. Let's take a break for a few minutes.

(Short recess.)

MR. BARREL: I think I will call first, Kahuna Pule Leilani Mitchell, Church of Hawaii Nei.

KAHUNA PULE LEILANI MITCHELL: (Mrs. Mitchell presented a short prayer.) I thank you all for allowing me this privilege of speaking, and I thank this wonderful gentleman, Mr. Ziegler, for just happening to mention he was on his way here to attend this hearing about the volcano.

I was born and raised part of my life in Hilo; I was born in Waikea-kai. My mother's people were all dancers and artists so the volcano has a very close oneness in my heart. The reason I came is because I know today the Church of Hawaii Nei, which was founded by a very young gentleman of Jewish descent, is a religious non-sectarian, non-denominational organization, to perpetuate the religious, cultural aspect of the Hawaiian people. I'm ordained and licensed as a modern-day

kahuna which I only accept to add when I go to the heiau up at the North Shore in the name of the Lord Jesus. Being a dancer myself, when I had my debut when the volcano erupted, I think it was in 1925, maybe 1926, my mother, the late Esther Paulson took me there--this was a religious rite so that I would be endowed with greater blessings. My middle name is Hi'a, which is fire--the holy ghost fire.

I felt that by coming tonight I would speak on behalf of preserving an area where there will be in the future those that would want to come and perhaps realize that the volcano has much to do in our future lives. I want to recall after the great flood, which was a baptism for the earth, Noah and the things that he brought, which we are descendants of, perpetuated the land. If we do not continue this wonderful plan, we must fear this, because it will be in our future--the earth will be baptized by fire. So my people did realize that Pele, which she is called by, has a lot to do with the future.

About 2 years ago one of my children went with me to the volcano to acknowledge Pele, that we needed her guidance and her help and her blessings to strengthen us because we know that she is only a handmaiden to the Almighty who is our righteous eternal Father in heaven, and this is the reason I'm here. There will be no opposing any progress or improvement that anyone will come to lend their strength to Hawaii Nei. We must always remember that this is the religion of my people, and I hope some day there will be an area and especially close to the heiau where some of us who are coming from all over the world can try and live this wonderful plan that my people had to give up because of ignorance. I know my people were not

heathens, they originally came from Egypt, a descendant of Joseph, who I am part of. May I also acknowledge that my people were high chiefs who came by way of South Point, that they call today. It was called Kalailoa Point, and I'm a descendant of the Kalailoa clan. I hope the day will come when these historical points of interest, historically so, will be re-established.

I'm only here to offer and to lend the strength that my forebears were endowed to do--to share these knowledges and whatever improvement will come it will be for our good. I accept the wonderful plans that are now being discussed because I believe that people realize that there will be an area where they can come to meditate, spiritually speaking they will be uplifted. They will wonder perhaps it's a good place to get away from the madness of the city life. I think without realizing it will be for their benefit like the yoga. People go into a retreat, and I think it's wonderful. I haven't been close to the progress that has been going on, but I only can accept anything praiseworthy that is now being formulated. I just want to lend this strength to you, that may God bless you--whatever improvements you will be making around the volcano.

Also, do wear your ti leaves because there is 85% iron in the ti leaf. The kahunas had to wear it if they were weakened, perhaps by their chores or perhaps when they were healing people. You do exhaust the iron from your body. Some of us take vitamins, but the old ancient Hawaiians knew that the ti leaves that they brought just created a peaceful harmonious environment and vibration. For those of you who are dealing with the volcano, I just want to add this so you can be strengthened and find peace when she's in an uproar.

I was told that if and when Pele would visit, she would only be asking. I've never met her; I only have seen her eruptions. But she asks for cigarettes or salt; and I think she's testing the kindness and the humility. There is a location--perhaps you may have this area in your plan--where the ti leaves were planted. When she flowed, she parted in the center of this property, went directly around, and kept on flowing down to the sea. I think this will strengthen this legendary historical history. So I hope and pray that my forebears are with all of you when you do tread upon that sacred area. Thank you all for your time. God bless you.

MR. BARREL: Thank you Reverend Mitchell. Alan Ziegler, representing the Bishop Museum. Alan.

DR. ALAN ZIEGLER: Thank you Mr. Barrel. Maybe I'll speak without this mike--if it's too loud or too soft, yell. I'm Alan Ziegler, Vertebrate Zoologist at the Bishop Museum, and I'm here giving an official statement for the Bishop Museum. At the museum the staff all looked over these proposals very carefully, and we want to say to Mr. Barrel and especially to the Regional Director and the planner, we like the three environmental impact statements. The one we're talking about tonight, of course, is the proposed master plan. So we'll only talk about that. I had to bring some of the other things in it.

We'd like to comment on the three-fold goal of this master plan. You mention first, increase in visitor use opportunities as one of the three goals to the National Park, and we think this is great--I mean this is really important. A lot of scientists will tell you, "Gee,

keep the people out of it. Keep it and make it a scientific preserve." That's not the only idea of the park; that's one-third of it. So we say by all means your visitor-use opportunities in this master plan--do go on with that. We think more visitors using the park and more opportunities for interpretive places in the park will only increase appreciation of the park. So when somebody mentions save these parts of the park, the visitors will say, "Yes, we've seen the place; by gum save it."

The second thing in the three-fold goal of this master plan is maintenance and protection of Hawaiian ecosystems. This aim is what the whole U. S. National Park System was set up for by Teddy Roosevelt, as a matter of fact, to save a natural area when years from now it's a concrete jungle. At least you have something left that was native--what was there originally. And this has paid off, of course, on the mainland. Now you mention in the master plan various ways to go about this maintenance and protection of Hawaiian native ecosystems, and you put way up there near the top in priority the control of introduced animals over there--such as those goats that were introduced into the park. We say this is all important. Until you get rid of those goats in the park you can't think of saving native plants, trees, and shrubs. One way is goat exclosures, which you talk about in your proposal as shown there. So we would say that everything, as far as protecting the native ecosystem, almost all the time and money and effort have got to go into this goat control work until you get them under control--also, feral pigs. Then you can go into re-establishing native forests and so on. Of course, a lot of this will go on and on, but the goats will have to go first.

I have to expand a little bit on that, if I may. It's not only goats that are in the park now and the pigs that are in the park now, the feral sheep in the Hualalai area, and so on, but there's talk of introducing axis deer to the Big Island. Now if you've looked over the plans and you've been to the Big Island, well goats can be pretty well controlled by a 4 or 5-foot high fence, and this will be built in various parts of the park. Axis deer--the fence is nothing to them--they just jump right over the thing. I guess goats could get over a fence too, they just don't seem to get over the fence, from what we've seen over at the national park. So this 4-foot drift fence keeps goats out fine. If axis deer were introduced to the Big Island they would spread all over the island. All these years and thousands of dollars to control goats are gone. Axis deer, black-tail deer, anything in that order. So we think the park ought to work into their statement, no more introduced animals to go to the Big Island. These are all for hunting purposes.

We'd also like to point out something that's not mentioned either in the proposed natural resources management plan, which we're not talking of tonight, or the master plan, and that's exotic birds, that have been introduced--again for hunters--pheasants, quails, chukars, and so on. These are not hunted in the park, and surely they are doing some damage to native ecosystems. One thing they do; pheasants eat introduced blackberry, spread the seeds into the park, and blackberry spread all over. So, we would think that something ought to be done in the park toward trying to control these populations of exotics, especially exotic game birds. They are trying to re-establish nene,

the Hawaiian goose, in the park and it eats green vegetation and so on. For all we know, pheasants are in direct competition with nene in the lowlands of the park. Anyway, we think some attention should be paid to exotic game birds.

We also think not enough is said in the statement about controlling exotic vegetation moving into the park. This is part of the problem with goats. Goats selectively eat out natural vegetation, then introduced vegetation--lantana, keawe, haole koa; klu (the spiny stuff that comes from the mainland), the goats won't eat the stuff so it slowly takes over. So as you get rid of the goats there ought to be some thought of maybe getting some help from the Forest Service on getting rid of the exotic vegetation.

You also mention re-growing in nurseries some native plants that have been pretty much wiped out in the park, and replanting these in communities. We think this is good, especially after you get rid of the goats so they won't eat it. But we do say, for instance in Hawaii Volcanoes National Park, if you'd like to have a silversword, don't go to Maui to Mr. Cahill's park and get a Maui silversword and bring it to the Big Island and plant it in the wild. In other words, this is ruining the scientific integrity of the place. So do consult, if you would, with local botanists and ecologists that know the islands so you get the proper type of ecosystem with the right species of native plants and in the right composition. If you need seeds for koas for replanting, get it from koa trees as close to the area to be replanted as you can.

Finally, on this re-establishment of native vegetation and so on, and re-establishment of possibly trying to breed Hawaiian crows and other forest birds to put back into the area, I'm not sure that a lot of money should be wasted on this bird project other than the nene project, because a lot of the native forest as they come back will provide habitat for native birds. Native birds will then move into this habitat from other parts. In other words, see what happens when you get the native habitat. I think a lot of the birds will move back in without having to raise the birds separately.

Let me go on to the third part of this three-fold master plan goal, and that's volcanic instrumentation and research. If you go up Mauna Loa and so on in many of the places you see lots of tilt stations and all kinds of equipment. Most of it is out of the way and not too much visual pollution, and so on. We think that scientific research should be carried on by all means. Keep on as you have already, minimizing visual impact of this thing. We think that scientific research is terribly important and really doesn't hurt the park as a whole.

Then I'll say something about the proposed boundary changes here in the park, as they are mentioned in the plan which Mr. Mortimore mentioned to you. Bishop Museum would say that three of these land additions seem really critical--seems like they should be of highest priority. We would say the south shore, or the offshore lands, should certainly be included within the national park because nowhere in Hawaii do we have any shoreline national park, in other words something

that the Federal Government can control. We have to rely on the Division of Fish and Game and they're not noted for making good fishing regulations. So we do need a marine sanctuary as part of the national park. So we should say, somewhere along this south coast, preferably this whole thing, we hope will fall into the national park.

Secondly, we would say of equal priority is the Olaa Forest Reserve. We certainly think this is good. This is the tree fern forest mainly, and that area is going quickly. The Division of Forestry is cutting down just below it and planting some eucalyptus or pine trees or something which they don't know what they're going to do with--they're supposed to sell them. So, anyway, if we get the Olaa into the national park then we know we've got that thing forever.

We would say finally, Tract 19, down there in Kalapana in this area there's a small area that you want to acquire there mostly to have this Chain of Craters Road be able to go down to the historic and prehistoric archeological sites. We would say by all means get about 420 acres you mention of Tract 19, as described in this proposal.

We might say something about this big Hualalai addition. It's fine if you can get it. It looks like a lot of money to buy it first; it looks like a lot of money to keep it up. If I can speak frankly, some people are going to yell land grab or something. So we're just saying, if something has to go on this land addition, deletions, and so on, leave that part out of it. Most of this habitat is fairly uniform; it's represented in other parts of the park. It's a lava

wilderness--I don't know why anybody would want it. There's a little grazing in there. So we would think if something has to go, that might be the thing to go. That would take this road out of it too; we consider it as desirable.

One more little thing we might mention. We think Kilauea Forest Reserve would be a terribly nice thing to add. I have no idea of the politics involved, on the private owners, what have you. If you can possibly swing Kilauea Forest Reserve, because this is just going to be logged out--it's been logged out of koa, ohia, and so on--we think it would be a very nice addition.

I'd like to say one final thing. This Chain of Craters Road reconstruction that you talk about in your plan. This is the road along here, which as you mentioned before is lava covered and you want to rebuild it. We say, by all means rebuild that road. We think that's excellent visitor opportunity to see the craters in action. Also, that's the only way for the visitors to get from the visitor center down to this Kalapana area, to the archeological sites there. It's not the only way but it's the only convenient way. They can come another way from Hilo. We think the Chain of Craters Road is a great reconstruction thing. I think it is being proposed for reconstruction at right angles along the lava flows so you have a little less road to replace anytime it gets washed out--but Pele will forgive you. Build it back up because that's a very good road.

Finally, I want to say thanks for the Bishop Museum for letting us make this statement. Thanks to the personnel of the Regional Director's office for coming out to this place. I'd like to add a

personal note. I used to work in Yellowstone in Wyoming and I like the national park, and I've seen many of the other national parks. They're all nice--they are mainland national parks. But there's an overlap in all of them--they have some of the same animals, some of the same plants. We've got two that's different in the United States--Mr. Cahill's park at Haleakala, and a national park that's really different is this Big Island national park, and it will become more and more valuable as time goes on. So I say, "By all means, save this park." Thanks a lot for a nice proposal.

MR. BARREL: Thank you, Alan. Wayne Gagne--Wayne, I think you are tonight representing the Hawaii Audubon Society.

MR. WAYNE GAGNE: I don't have a statement; mine is more of questions. So, maybe I can ask them one at a time or something like that.

MR. BARREL: Sure, all we would ask is that you come on up so we get your questions down and not have to try to remember what they were.

MR. WAYNE GAGNE: My first question is, what sort of criteria did you have when you established the desirability of adding this portion of the national park--what geological, archeological, or biological things that are represented here that would make a nice addition to the park? I'm just curious about it--it's not spelled out..

MR. BARREL: I'm not sure that we did it on the basis of measurable criteria. Ron, you may want to join in this. The geological values of Hualalai as a different stage volcano from Kilauea and Mauna Loa have been called to our attention many times. It was called

to our attention today by Dr. Gordon Macdonald as having high scientific value and interpretive value in the sweep of geologic history in the Hawaiian Islands. Staying on geology for a moment, again the southwest rift zone of Mauna Loa, although superficially more of the same, has some particular things of interest--sulphur flow and sulphur cones. It isn't, I'm sure, essential that it be a part of the park, but the high slopes of Mauna Loa contain further examples of geologic phenomena that seem to be worth saving. Quite honestly, as has been said before, it's not used for much else. We could see potential very marginal development coming up from below; we believed the planning status that would be better preserved as part of the park.

Archeologically, the only single thing we know, I think, is Ahuaumi which is a very interesting heiau particularly because of its high location, even though it's been picked over very badly. There is also the historic Judd Trail which is past Ahuaumi. Biologically, I'm not a very good one to talk about this since I am by no means a biologist; but it's our understanding, particularly with control of feral animals in that area, there are some biological values particularly on the slopes of Hualalai--the edge of a little crow habitat that's left on the island. Nothing, perhaps, comparable to some of the other biological values but still of some value to be worth preserving.

MR. MORTIMORE: One other minor addition to what you said about the slopes of Mauna Loa, the matter of additional protection to the sort of profile of Mauna Loa, particularly as you see it from Kilauea. Right now the only thing you have is the protection at the summit.

Then if you add the profile on down the slope to around the 8,000-foot level it would protect that additional part of the mountain from development. Of course, there's not much chance of development taking place but it does give us that additional acreage as part of the classic profile.

MR. GAGNE: That just helps me to explain to my membership what that extension is all about. One thing that puzzles me a little bit-- I don't see the feral cat really singled out as a problem.

MR. HARRY: No, it isn't.

MR. GAGNE: It's not a similar situation to that which is considered to be a problem, I gathered, at Haleakala National Park for dark-rumped petrel. I was wondering if you had the same species in your park, even at lower elevations, whether that would be a problem.

MR. HARRY: It is a problem, as are mongooses and rats. We don't at this point, have a real plan on cats, rats, or mongooses, and as we develop these we'll be back with you.

MR. GAGNE: I would like to see it included.

MR. HARRY: Fine.

MR. GAGNE: Maybe the kahuna can help us on this. I see that you have pili grass as an endemic plant species. I was always under the impression that the colonizing Hawaiians brought it with them. I'm curious about that. It's just a little aspect that might help in the interpretation as far as the anthropological aspects of the national park as one of the points that the Hawaiians brought more than the 27 or so species.

MR. HARRY: On that questions, I'll have to look to you guys for the answer.

MR. GAGNE: I'd just like to see the new road alignment from the Chain of Craters Road go across as much new lava as possible because the vegetation down there has taken quite a beating, not only from goats but from ground fires from the new lava flows. I'd like to see the ethno-botanic aspects of the Wahaula Heiau spelled out a little bit more. I think that offers real challenge and possibility for addition to the national park for the plants used in conjunction with that heiau could be placed there, if they are not there at present.

I'd like to see possibly something in the nature of arboreta established in the wilderness threshold zone so a person could see the living plants before he hikes into an area. For example, on the upper portions possibly silverswords and the other alpine shrub; and further down, say for people hiking into this area, some sandalwood or kauila or something like that, for they may see only one of them and miss what they are looking for. So I think it could fit in with your planting program.

I see you call the hibiscus variety; it's a very minor thing, but I think you really mean technically species.

MR. HARRY: Yes.

MR. GAGNE: There's an ecosystem that's been recently analyzed by personnel of the Bishop Museum that really borders on your geological and your animal life, and that's your lava tube ecosystem and the flow ecosystem. It's just been found that lava tubes do contain very

remarkable arthropod communities which depend upon ohia roots coming into the lava tubes that are quite rightly represented in the national park and are susceptible to alterations, especially if the surface vegetation is removed. The major energy input is in the forms of tree roots; when the trees are killed these roots would die and the ecosystems are almost completely destroyed. So I'd like to see the park take cognizance of the fact that these exist since they are on record in magazines of science and Pacific insects and other journals. I think you can probably contact our people in the entomology department of the Bishop Museum who have investigated the ecosystem.

I'm under the impression that the dark-rumped petrel also nests at Makaopuhi. That maybe should be added.

MR. HARRY: This was written before that knowledge came out as well as the Newell's. It's hard to keep up.

MR. GAGNE: It's good that new things are always being found. A couple of statements regarding the Kilauea Forest Reserve. I reiterate Dr. Zieler's statement. You have in here the only remaining place in the world that the akepa, creeper, and akiapolaau still occur. That's really not correct. They are seen sporadically here and there so it might be a point that you could not defend were someone to call you on it. But this is really the Valhalla for these birds. I don't think the State of Hawaii is doing the harvesting--it's a private concern. So we can blame them (the State) for a lot of things, but I don't think we can blame them for the cutting.

MR. HARRY: Correct.

MR. GAGNE: That's about all I have.

MR. HARRY: We'd appreciate it if when you find small flaws like that, which are really important to us, if you would let us borrow your draft where you've checked off some of these things so we can try to correct them.

MR. GAGNE: You bet. I've been under the impression that public meetings were sort of to hear comments and criticisms, and so I didn't have a formal written testimony.

MR. BARREL: That's fine--thank you very much. These are all the cards I have. If there is anyone who has come in since. I saw some people in the back of the room for a while but they are gone. Anyone else has something which he or she has to say? Please don't hesitate to do so. I think we perhaps have made our point that we are not very formal here tonight. We are desirous of all the input we can get so don't hesitate to speak up.

DR. ALAN ZIEGLER: Perhaps I didn't stress it enough in my talk. It's just unbelievable the amount of work that went into this. I'm sure the planner and the Director had to consider all of these alternatives and get all these books ready and so on, and the thing you came up with was good. You said, Mr. Barrel, that these are alternative things, but I think you did just the right thing with your final plan--that was the best thing. The alternative was second best or tend to be. Anyway, again the Bishop Museum can't tell you how much we appreciate all this work. This is where we'd like our tax money to go, by gum.

MR. BARREL: Thank you very much. You can thank Ron Mortimore and Bryan and his staff. They've done the lion's share of work.

Any other comments? If not, I guess it comes the time when I can say you can all go home, and we will terminate this master plan meeting. We have taken some good input--Hilo, Kona, and here. We'll be getting more and have gotten more by mail, and we want to stay in touch with those who are so concerned. If you think of other things, don't hesitate to let us know. Thank you all for coming.

(Meeting adjourned at 8:05 p.m.)

326 Lanipo Dr.
Kailua, HI 96734

February 25, 1974

National Park Service
c/o State Director
677 Ala Moana Blvd., Suite 512
Honolulu, HI 96813

Dear Sirs:

I wish to express my general approval of the Master Plan for Hawaii Volcanoes National Park, and for some parts of it in particular. I wish also to suggest one addition to it, and to advocate the temporary or permanent omission of one tract of land suggested for acquisition.

To identify myself: I am Senior Professor of Geology and Geophysics at the University of Hawaii, Manoa Campus, in Honolulu. I have been closely familiar with Hawaii Volcanoes National Park and its operations since 1940, and have mapped the geology of nearly all of it, for the U. S. Geological Survey. From 1948 to 1956 I was stationed at the Hawaiian Volcano Observatory, in the Park, as geologist for the Geological Survey, and from 1951 to 1956 I was in charge of the Observatory. I have also mapped and studied the geology of much of the rest of the Island of Hawaii, and of large parts of the other Hawaiian Islands, including Haleakala. I am a recognized authority on volcanoes and volcanic rocks, and the author of more than 100 published technical reports on Hawaiian geology. I am also joint author (with A. T. Abbott) of a book on the geology of the Hawaiian Islands (VOLCANOES IN THE SEA: THE GEOLOGY OF HAWAII, University of Hawaii Press, 1970), and author of the most recent general text on volcanoes (VOLCANOES, Prentice-Hall, Inc., 1972).

Over the last third of a century I have been very much impressed with the beauties and scientific values of Hawaii Volcanoes National Park. I am no better qualified than many others to testify as to its scenic values. Indeed, they must be obvious to all! But I have had the opportunity to observe them and any changes in them over a long period of time. As compared with its condition when I first knew it, the Park has suffered relatively little deterioration as compared with many neighboring areas, and in some respects it has made noteworthy recovery toward a natural condition that had already been upset before the Park was established. And this is in spite of constantly increasing numbers of visitors!

The National Park Service is to be highly commended for its stewardship! I am convinced that, without its protection, the area would have been much invaded by habitation (the invasion was well under way before the Park was created), with its concomitant destruction of natural flora and fauna and geological formations. And to this would be added the depredations of visitors. We would have little left of the natural scene without the protection given by the Park.

National Park Service, Feb. 25, 1974, continued:

The National Park service has also done a good job of making the area available for the enjoyment of the public, both in making it accessible with reasonable ease by good roads and excellent trails, and in interpreting the scene. As to the geological part, I can say with authority that the job done has been excellent. As to the botany and zoology, many comments from persons expert in those fields indicate to me that the job there too has been good. In anthropology and archeology I am no expert, but I have read extensively about things Hawaiian for more than three decades, and have talked with many of the older Hawaiian people, and in spite of some criticism from limited groups that I have heard in recent years, I am strongly of the opinion that in those fields also the interpretations and presentation are good.

Over the years there have been occasional periods when policy as to allowing the public access to some areas, especially those near the sites of eruptions, has appeared to me unduly restrictive. On the other hand, there have been times when I urged the Park Superintendent to keep people away, because of excessive danger! On the whole, I think the Park's record has been excellent; and especially in recent years there has obviously been a very sizeable effort to make these areas available, while at the same time exercising reasonable safeguards for public safety. The hundreds of thousands of people who have thus been enabled to view sights that will be unique in their lives, without a single serious casualty that I know of, is truly remarkable. I hope the Park Service will continue this superb work, and I am confident it will.

The foregoing is intended to establish my conviction that the National Park Service is a competent and effective guardian and interpreter of our scenic and scientifically important areas. Turning now to specific items in the Master Plan:

Inclusion of the Olaa Forest Tract in the Park appears to me to be highly desirable. Its quality as a remnant of relatively little disturbed native Hawaiian forest is well recognized. Of many such tracts I have traveled through during the geologic mapping of the islands, I know of none that appears less disturbed, even the upper reaches of Kipahulu Valley on Maui. Although the area is already administered by the National Park Service, formal inclusion in the Park is unquestionably desirable to guarantee a greater degree of permanence to its protection against the increasing pressure of land development.

The addition of the offshore lands, as defined in the Master Plan, also appears to me highly desirable. The adverse effects of human pressure on near-shore fishes and other marine life have been obvious during the time I have known the shoreline. For instance, fish were much more abundant at Halape, and opihi much more abundant along the whole shoreline, twenty years ago than they are now.

National Park Service, Feb. 25, 1974, continued:

I would particularly like to see the addition of the summit area of Hualalai to the Park. Hawaii's volcanoes have gone through a regular evolutionary pattern. Examples of the early-stage shield volcanoes, with their calderas and the products of "Hawaiian-type" eruptions are well displayed and protected for future visitors and students of volcanology in Hawaii Volcanoes National Park. The products and structures of the late stage of volcanism, with its "Strombolian-type" eruptions, are similarly well displayed and protected in Haleakala National Park. But nowhere is the intermediate stage protected and made available to students and interested visitors. Hualalai is an excellent example of the intermediate stage, with young and well-preserved flows and cinder-and-spatter cones. As a volcanologist, and speaking, I am sure, for many other students of volcanism, as well as very many interested laymen, I would like to see the summit of Hualalai protected, as an example of the intermediate stage of Hawaiian volcanism. The summit area is in urgent need of protection. Cones such as those in the summit area are very sensitive to disturbance. Once the surface is broken, and plant cover disturbed, erosion cuts into them very rapidly. The area changed very little for many years; but in the last decade vehicles have made tracks over many of the cones, and destroyed vegetation, and consequent erosion by rain wash is leading to much gullying. In addition to the geological interest, the saddle area between Hualalai and Mauna Loa is of great interest archeologically and historically. It is the site of the Umi Heiau, with its remarkable stone pyramids, and it is traversed by the Judd Trail, a remnant of the era of the 1850's. Stones along the border of the Judd Trail are being displaced by cattle and by jeeps and other wheeled vehicles, and the trail itself will soon be obliterated under present circumstances. On my last visit, wheel tracks ran into the heiau itself, and a recent campsite was marked by a stone fire circle and a heap of rusting cans.

If the area is taken into the Park, the access road from central Kona is almost a necessity, if the area is to be made properly accessible and also properly protected.

On the northwest rift zone of Hualalai there is a geological occurrence that has attracted world-wide attention. The rising lava of the 1801 Kaupulehu lava flow brought up, from the mantle of the earth, below the crust, vast numbers of solid chunks of olivine-rich rock. As the flow moved down slope it spread over an area of gentler slope, and its velocity temporarily was checked. Thousands of the heavy olivine-rich chunks were dropped, like cobbles along a stream bed. The occurrence has already been studied by volcanologists, and by petrologists interested in the nature of the earth's interior, from all over the world, and it certainly will be studied by many more. So far as I am aware, it is unique in the world. But unless the area is protected, it will soon be defaced and despoiled by amateur collectors with sledge hammers, and it may be made inaccessible to serious students and visitors alike by subdivision or other development. It has even been suggested that the olivine-rich nodules be mined, with bulldozers, as a source of magnesium for fertilizer.

National Park Service, Feb. 25, 1974, continued:

The olivine-rich nodule locality is in the immediate vicinity of the telephone relay station, at about 3,500 feet altitude. I urge that the Park be extended to take in this area of world-wide interest and uniqueness.

Connection of the summit of Hualalai and the Hualalai-Mauna Loa saddle to the present Mauna Loa section of the Park, and southward extension of the Mauna Loa section to take in the southwest rift zone to a level below Sulphur Cone, also seem desirable. Both areas are lava barrens, worthless for other purposes, but containing many land forms of geologic interest. The sulfur lava flow at Sulphur Cone is one of only a very few known on earth. Also, addition of these areas would greatly increase the area of primitive wilderness that is available to persons of present and future generations seeking to escape the increasingly overwhelming pressures of modern civilization.

Finally, there is one area proposed for inclusion in the Park that I would like to see omitted, at least for the time being. That is the area of tracts 26 and 27, southeast of the Great Crack and west of Kapao Point, along the southwest rift zone of Kilauea. The area is one in which recent infrared surveys have shown unusually high ground temperatures. Warm water has been known for many years at nearby Waiwelawela. (The name means "hot water".) These facts make it one of the most likely areas in Hawaii for possible development of geothermal energy. Particularly in consideration of the present energy shortage, the development of geothermal energy would be of tremendous importance to the Island of Hawaii and to the State as a whole. Until exploration for possible geothermal energy sources in it can be carried out, and unless the exploration demonstrates that the development of geothermal power in the area is impossible or infeasible, inclusion of the area in the Park would be undesirable and against the best interests of the Park Service itself. Not only might it deprive the community of a possible source of energy and an important boost to its economy, but it might have highly adverse effects on public opinion and the relationship between the Park and the otherwise friendly majority of the public. Neither would it be desirable to incorporate the area into the Park with the proviso that exploration and development of geothermal resources in it would be permitted, because this would set precedents that might adversely affect other parts of the Park.

With best wishes for the future of Hawaii Volcanoes National Park, and the National Park Service as a whole,

Sincerely yours,


Gordon A. Macdonald

cc: Mr. Brian Harry, Superintendent,
Hawaii Volcanoes National Park